Table 3: Adult Surgical Critical Care Units Central Line Associated Bloodstream Infection (CLABSI) Standardized Infection Ratio (SIR) Table
**July 1, 2007 – November 30, 2008**

See Definition of Terms at the Healthcare Acquired Infections Report website for a more in-depth explanation of Standardized Infection Ratios.

Standardized Infection Ratio: The Standardized Infection Ratio (SIR) is a summary measure used to compare the central line associated bloodstream infection (CLABSI) experience among a group of reported locations to that of a standard population. It is the *observed* number of infections divided by the *expected* number of infections.

For HAI reports, the standard population comes from NHSN data reported from all hospitals using the system. "Expected" *is based on historical data for those procedures at the national level.

Confidence Intervals (CIs)
Because we can never obtain a hospital's true "population" data (e.g. all patients for all time), we use statistical procedures to "estimate" various measurements using "sample" data. Since estimates have "variability" we use 95% confidence limits (or intervals) to describe the variability around the estimate. The confidence interval (CI) gives us the range within which the TRUE value will fall 95% of the time, assuming that the sample data are reflective of the true population.   Below is a graphical example of what CIs would look like if they were in graph form.
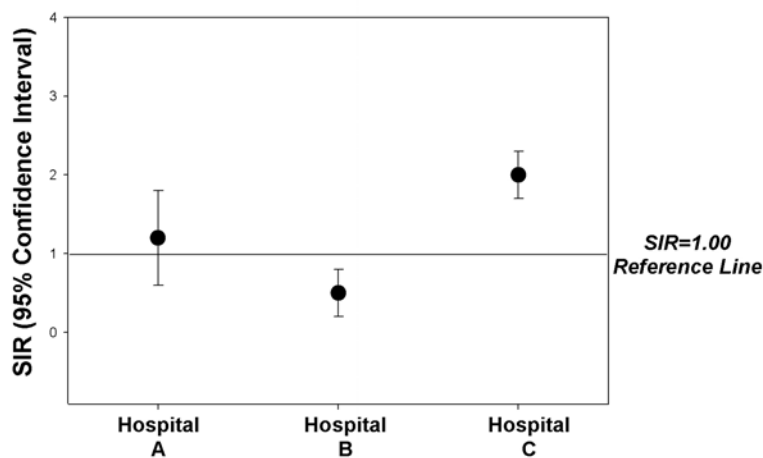
Graph Interpretation:
Hospital A: If the 95% confidence interval crosses over the reference line of 1.0, we conclude that the hospital's infection rate is similar (not significantly different) from "expected" (predicted).

Hospital B: If the 95% confidence interval <u>falls completely below the reference line of 1.0</u>, we conclude that the hospital's infection rate is significantly lower than "expected" (predicted).

Hospital C: If the 95% confidence interval <u>falls completely above the reference line of 1.0</u>, we conclude that the hospital's infection rate is significantly higher than "expected" (predicted).

All conclusions are based on the assumption that the hospital's patient population is similar to the NHSN pooled patient population.

*Please note that the "expected" number of infections does not mean that you expect to get an infection when you go into the hospital for surgery. **The goal is for the hospital is to prevent all HAIs.**

Central Line Associated Bloodstream Infection (CLABSI) Standardized Infection Ratio (SIR) Table 3

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Table 3

Statewide

Location: Adult Surgical Critical Care Unit

Reporting Period: July 2007 – November 2008

Hospital	Observed No. Of CLABSI	No. of Central Line Days	Statistically "Expected" No. of CLABSI[‡]	Comparison to Standard Population SIR = 1 (Observed = Expected)			
				Hospital SIR = Observed "Expected"	95% Confidence Interval (CI)		Statistical Interpretation[†]
					Lower	Upper	
Carolinas Hospital System	5	1160	2.67	1.87	0.61 -	4.37	Not Different
Grand Strand Regional Medical Center	5	1444	3.32	1.51	0.49 -	3.51	Not Different
McLeod Medical Center – Pee Dee	0	2410	5.54	0.00	0.00 -	0.67	Lower
Piedmont Medical Center	0	145	0.33	0.00	0.00 -	11.18	Not Different
Spartanburg Regional Medical Center	6	2943	6.77	0.89	0.33 -	1.93	Not Different

[†]   SC Hospital SIR Statistical Interpretation
- Similar = Statistically not different than the standard population
- Lower = Statistically lower than the standard population
- Higher = Statistically higher than the standard population

[‡]   Please note that the "expected" number of infections does not mean that you expect to get an infection when you go into the hospital for surgery. The goal is for the hospital is to prevent all HAIs.